ABSTRACT

Elongation in the circumferential direction of a rotary formed body is produced only within a model zone, and the approximate toric plate shape is maintained as the overall shape of the body, and the rotation axis of the body is positioned on a straight line connecting axes of rotation of a main roll and a mandrel roll. Moreover, the velocity of each nodal point and on imaginary cutting planes, that is a velocity boundary condition is expressed by a linear combination of coefficients comprising a radius of the imaginary cutting planes, and angles made by the imaginary cutting planes, with respect to three variables comprising an increasing rate of the radius of the body, an angular velocity for rotation about the rotation axis of the body, and a correction value for the traverse velocity of the rotation axis of the body.